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EXAMINER

HOSSAIN, FARZANA E

ART UNIT

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2424

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/781,122	Applicant(s) BASAWAPATNA ET AL.	
	Examiner FARZANA HOSSAIN	Art Unit 2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,23-30,34-37,41,43-45 and 48-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21,23-30,34-37,41,43-45 and 48-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This office is in response to communications filed on 08/31/2010. Claims 1-20, 22, 26, 27, 31-33, 38-40, 42, 46 and 47 are cancelled. Claims 21, 34 and 48-49 are amended. Claim 23-25, 28-30, 35-37, 41, 43-45 and 50-51 are previously presented. Claims 49-51 are new. Claim 52 and 53 are new.

Response to Arguments

2. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

The applicants argue that cited prior art does not disclose the new limitation (Page 14). The applicant argues that Hoarty would improperly modify the invention of Stoel because Stoel's invention discloses jamming of signals and whether or not Stoel's invention could receive the same signal, they cannot receive the same combined signal (Pages 13-15). There is no reason to combine Stoel and Hoarty (Page 15).

In response to the argument, the examiner respectfully disagrees. Stoel allows for jamming of signals. The examiner maintains that argument that a number of interface units cannot receive the same signal is not persuasive as a number of interface units can receive the same signal and still restrict some channels. Stoel

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discloses all of the RF channels are delivered from service module to the subscriber units (Column 2, lines 53-57). Stoel discloses selecting channels such as pay per view, video on demand (Column 5, lines 18-26). Hoarty discloses pay per view channels/premium channels (Page 10, paragraph 0096). See new rejection below for the selected channel on a frequency unique to a user.

The applicant states that rejection should be withdrawn for Claims 21 and 34 (and their corresponding dependent claims).

See above response.

3. Regarding Claim 48, the applicant argues that Granger does not disclose the limitation “the bandpass filter at the customer location of the first user interface unit configured to allow the first frequency band corresponding to the first user interface unit to pass through to the first interface unit while preventing the second frequency band uniquely corresponds to the second user interface unit from passing through the first user interface unit” (Page 16).

In response to the argument, Granger discloses a separate fixed frequency bandpass filter located at each customer location for each interface unit, the bandpass filter substantially preventing video channels other than the selected video channel associated with that interface unit to pass through to the interface unit or at the customer location of the first user interface unit configured to allow the first frequency band corresponding to the first user interface unit to pass through to the first interface unit (30-56, Column 7, lines 11-27, 43-55). See new rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 21, 24, 25, 28-30, 34-36, 41, 43 and 49-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoel et al (US 5,905,942 and hereafter referred to as "Stoel") in view of Hoarty et al (US 2005/0114906 and hereafter referred to as "Hoarty") and Ehreth (US 6,286,142).

Regarding Claim 21, Stoel discloses a cable distribution system (Figure 1, 10), comprising:

a plurality of service modules (Figure 1, 28) associated with a headend (Figure 1, 12), configured to receive signals from a plurality of video sources and further configured to multiplex certain ones of the signals together to create one or more multiplexed channel signals (Figure 1, 12, Figure 3A, 86, 92, Figure 3B, 96, Column 11, lines 6-13), wherein each service module is receiving configured to receive one or more of the multiplexed channel signals (Column 2, lines 53-56).

It is necessarily included that Stoel discloses at least one receiver/de-interdictor within each service module (Figure 1, 28) as the service module receives signals from the headend and the service module or interdiction field unit receives and de-interdicts

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signals. Therefore, Stoel discloses a receiver/de-interdictor or receiver/decoder configured to receive and decode the one or more multiplexed signals, to select one or more video channels, not all, of the certain ones of the signals from one or more of the multiplexed channel signals so as to output video channels (Column 2, lines 53-64, Column 5, lines 8-16) and

provide the video channel that is determined by the headend via control signals sent to the interdiction field unit or service module, each video channel received/decoded or de-interdicted by the given service module or interdiction field unit being sent to the interface unit (Column 4, lines 45-55, Column 5, lines 10-20), providing video channels to a plurality of interface units (Figure 1, 18) located at different customer location, each interface unit receptive of the video channel (Figure 1, 18, Column 1, lines 64-67, Column 2, lines 1-23, Figure 2, 44).

Stoel discloses selecting channels such as pay per view, video on demand (Column 5, lines 18-26). Stoel is silent on the service module providing one or more receiver/decoders within each service module the video channel to an output interface multiplexer in the service module, the output interface multiplexer configured to provide a same combined signal to each of a plurality of interface units located at each of a plurality of different customer locations, the interface unit at each respective customer location corresponding to the receiver/decoder that received/decoded the signals and that output the video channels, wherein the same combined signal includes at least a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit, the same combined signal

further including a second selected video channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit.

Hoarty discloses the service module (Figure 7, 11) providing one or more receiver/decoders within each service module (Figure 7, 67) to provide the video channel to an output interface multiplexer in the service module (Figure 7, 73, Page 4, paragraphs 0054), the output interface multiplexer (Figure 7, 73) configured to provide a same combined signal to each of a plurality of interface units (Figure 8, 76, 81a, b, c, Page 4, paragraph 0057) located at each of a plurality of different customer locations (Figure 30-32, Figure 7, 76a, b, c), the interface unit at each respective customer location corresponding to the receiver/decoder that received the signals (Figure 7, 66, Figure 30-32) and output the video channels (Figure 7, 76a-c), Wherein the same combined signal includes at least a first selected video channel modulated onto a first user channel on a first frequency band corresponding to a first user interface unit as it necessarily included that one interface unit receives one channel on a first frequency band of a number of received channels (Figure 7, paragraph 0054), the same combined signal further including a second selected video channel modulated onto a second user channel on a second frequency band corresponding to a second user interface unit as it necessarily included that one interface unit receives another channel on a second frequency band of a number of received channels (Page 4, paragraph 0054).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Stoel with the cited limitations as taught by

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Hoarty in order to provide a system which serves simultaneously homes with multiple devices with the modular structure (Page 4, paragraph 0056) as disclosed by Hoarty.

Hoarty discloses providing upstream communications for pay per view channels (Pages 10-11, paragraphs 0091, 0096). The combination is silent on a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit and a second user selected video channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit.

Ehreth discloses selecting a channel and sending data upstream, a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30) and a second user selected video channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination with the selecting a channel and sending data upstream, a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30) and a second user selected video channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit (Column 3, lines 40-50,

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Column 4, lines 63-67, Column 5, lines 1-30) as taught by Ehreth in order to reduce cost and complexity in a system by having one interface unit per subscriber home with multiple televisions in a system that serves multiple homes (Column 1, lines 13-35) as disclosed by Ehreth.

Regarding Claim 24, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 21. Stoel discloses a headend is a local headend located in a same building or set of buildings as the customer locations (Figure 1, 12).

Regarding Claim 25, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 24. Stoel discloses each of the plurality of service modules associated with the headend, that the headend is a local headend located in a building or set of buildings where the customer locations are (Figure 1, 12, 28). Hoarty discloses a local headend (Figure 1, 11) and master headend located remotely from the local headend (Figure 1, 15), the regional headend providing video channels at selected frequencies to the local headend (Figure 1, Page 3, paragraph 0046, Page 8, paragraphs 0054, 0057). It is necessarily included that if the master headend is located remotely from the local headend, it remote from the building or set of buildings.

Regarding Claim 28, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 21. Hoarty discloses each interface unit is capable of processing the combined signal without a frequency converter as the node demodulates the signal to send to the user and also decompresses the signal (Figure 32, Pages 9-10, paragraphs 0091-0093, Figure 8, TV).

Regarding Claim 29, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 21. Hoarty discloses that each service module is configured to utilize the plurality of same predetermined frequencies as each other service module as the plurality of service modules (Page 4, paragraph 0054).

Regarding Claim 30, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 21. Stoel discloses each interface unit is configured to pass information back upstream to an associated service module that includes channel selection information for interactive sessions (Column 3, lines 45-55, Column 4, lines 46-67, Column 5, lines 1-26).

Regarding Claim 34, Stoel discloses a cable distribution system (Figure 1, 10), comprising:

a plurality of service modules associated with a headend (Figure 1, 28) configured to receive signals from a plurality of video sources and further configured to multiplex certain ones of the signals to create one or more multiplexed channel signals (Figure 3B, 96, Column 11, lines 6-13), wherein each service module with a plurality of customers (Figure 1, 18A, 18C) and configured to receive one or more of the multiplexed channel signals (Figure 1, 28, Column 2, lines 53-56).

It is necessarily included that Stoel discloses at least one receiver/de-interdicator within each service module (Figure 1, 28) as the service module receives signals from the headend and the service module or interdiction field unit receives and de-interdicts signals. Therefore, Stoel discloses a receiver/de-interdicator or receiver/decoder

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configured to receive the one more signals, to select one or more video channels, not all, of the certain ones of the signals from one or more of the multiplexed channel signals as video channels (Column 2, lines 53-64, Column 5, lines 8-16) and

provide the video channel that is determined by the headend via control signals sent to the interdiction field unit or service module, each video channel received/decoded or de-interdicted by the given service module or interdiction field unit being sent to the interface unit (Column 4, lines 45-55, Column 5, lines 10-20), the interface unit (Figure 1, 18) located at customer locations, each interface unit receptive of the video channel (Figure 1, 18, Column 1, lines 64-67, Column 2, lines 1-23, Figure 2, 44), providing video channels to a plurality of interface units (Figure 1, 18, Column 1, lines 64-67, Column 2, lines 1-23, Figure 2, 44).

Stoel discloses selecting channels such as pay per view, video on demand (Column 5, lines 18-26). Stoel is silent on the service module providing one or more receiver/decoders within each service module the video channel to a multiplexer in an interface unit wherein each video channel in the subset of video channels is provided at a predetermined output frequency unrelated to the conventional cable frequency normally associated with the selected video channel; wherein the predetermined output frequencies of other receiver/decoders in any one service module; combined with other video channels of any one service module into a single signal, the output interface multiplexer configured to provide a same combined signal to each of a plurality of interface units located at each of a plurality of different customer locations, the interface unit at each respective customer location corresponding to the receiver/decoder that

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received/decoded the one or more multiplexed channel signals and that output the video channels, wherein the same combined signal includes at least a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit, the same combined signal further including a second selected video channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit.

Hoarty discloses the service module (Figure 7, 11) providing one or more receiver/decoders within each service module (Figure 7, 66) to provide the video channel to an output interface multiplexer in the service module (Figure 7, 73, Page 4, paragraphs 0054), the output interface multiplexer (Figure 7, 73) configured to provide a same combined signal to each of a plurality of interface units (Figure 8, 76, TV, Page 4, paragraph 0057) located at each of a plurality of different customer locations (Figure 7, 76a, b, c, Figures 30-32), wherein a predetermined output frequency of the receiver/decoders is different from a predetermined output frequency of any other receiver/decoder in a same service module (Page 4, paragraphs 0053, 0054); the interface unit at each respective customer location corresponding to the receiver/decoder that received the signals (Figure 7, 66) and output the video channels (Figure 7, 76a-c, Figures 30-32), Wherein the same combined signal includes at least a first selected video channel modulated onto a first user channel on a first frequency band corresponding to a first user interface unit as it necessarily included that one interface unit receives one channel on a first frequency band of a number of received channels (Figure 7, paragraph 0054), the same combined signal further including a

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second selected video channel modulated onto a second user channel on a second frequency band corresponding to a second user interface unit as it necessarily included that one interface unit receives another channel on a second frequency band of a number of received channels (Page 4, paragraph 0054).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Stoel with the cited limitations as taught by Hoarty in order to provide a system which serves simultaneously homes with multiple devices with the modular structure (Page 4, paragraph 0056) as disclosed by Hoarty.

Hoarty discloses providing upstream communications for pay per view channels (Pages 10-11, paragraphs 0091, 0096). The combination is silent on a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit and a second user selected video channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit.

Ehreth discloses selecting a channel and sending data upstream, a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30) and a second user selected video channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination with the selecting a channel and sending data upstream, a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30) and a second user selected video channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30) as taught by Ehreth in order to reduce cost and complexity in a system by having one interface unit per subscriber home with multiple televisions in a system that serves multiple homes (Column 1, lines 13-35) as disclosed by Ehreth.

Regarding Claim 35, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 34. Stoel discloses a headend is a local headend located in a building or set of buildings where a plurality of customer locations are situated (Figure 1, 12).

Regarding Claim 36, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 35. Stoel discloses each of the plurality of service modules associated with the headend, that the headend is a local headend located in a building or set of buildings where the customer locations are (Figure 1, 12, 28). Hoarty discloses a local headend (Figure 1, 11) and master headend located remotely from the local headend (Figure 1, 15), the regional headend providing video channels at selected frequencies to the local headend (Figure 1, Page 3, paragraph 0046, Page 8, paragraphs 0054, 0057). It is

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necessarily included that if the master headend is located remotely from the local headend, it remote from the building or set of buildings.

Regarding Claim 41, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 34. Hoarty discloses that service modules include frequency converters (Figure 3) and that the service module distributes frequencies to subscribers lines in the service module (Figure 7), the service module includes a frequency converter is capable of processing the combined signal (Column 2, lines 35-45), and each interface unit without a frequency converter as the node demodulates the signal to send to the user and also decompresses the signal (Figure 32, Pages 9-10, paragraphs 0091-0093, Figure 8, TV).

Regarding Claim 43, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 34. Stoel discloses each interface unit is configured to pass information that includes channel selection information back upstream to an associated service module (Column 3, lines 45-55, Column 4, lines 46-67, Column 5, lines 1-26).

Regarding Claim 44, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 21. Stoel discloses that the local headend located in a building or set of buildings where the customer locations are (Figure 1, 12) which receives signals from different locations (Column 2, lines 3-14). Hoarty discloses a headend is a local headend that is configured to receive a signal from a master headend (Figure 1, Page 3, paragraph 0046, Page 8, paragraphs 0054, 0057).

Regarding Claims 45, Stoel, Hoarty and Ehreth disclose all the limitations of Claims 21. Stoel discloses that the headend is a local headend located in a building or set of buildings where the customer locations are (Figure 1, 12). Hoarty discloses a

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local headend (Figure 1, 11) and a second headend or master headend remote from the local headend (Figure 1, 15), the headend or second headend providing video channels at selected frequencies to the local headend (Figure 1, Page 3, paragraph 0046, Page 8, paragraphs 0054, 0057). It is necessarily included that if the master headend is remote from the local headend, it remote from the building or set of buildings.

Regarding Claim 49, Stoel discloses an apparatus (Figure 1, 10), comprising:
a service module (Figure 1, 28) associated with a headend (Figure 1, 12),
configured to receive signals from a plurality of video sources and further configured to multiplex certain ones of the signals together to create one or more multiplexed channel signals (Figure 1, 12, Figure 3A, 86, 92, Figure 3B, 96, Column 11, lines 6-13), wherein each service module is receiving configured to receive one or more of the multiplexed channel signals (Column 2, lines 53-56).

It is necessarily included that Stoel discloses at least one receiver/de-interdictor within each service module (Figure 1, 28) as the service module receives signals from the headend and the service module or interdiction field unit receives and de-interdicts signals. Therefore, Stoel discloses a receiver/de-interdictor or receiver/decoder configured to receive and decode the one or more multiplexed signals, to select one or more video channels, not all, of the certain ones of the signals from one or more of the multiplexed channel signals so as to output video channels (Column 2, lines 53-64, Column 5, lines 8-16) and

provide the video channel that is determined by the headend via control signals sent to the interdiction field unit or service module, each video channel received/decoded or de-interdicted by the given service module or interdiction field unit being sent to the interface unit (Column 4, lines 45-55, Column 5, lines 10-20), providing video channels to a plurality of interface units (Figure 1, 18) located at different customer location, each interface unit receptive of the video channel (Figure 1, 18, Column 1, lines 64-67, Column 2, lines 1-23, Figure 2, 44).

Stoel discloses selecting channels such as pay per view, video on demand (Column 5, lines 18-26). Stoel is silent on the service module providing one or more receiver/decoders within each service module the video channel to an output interface multiplexer in the service module, the output interface multiplexer configured to provide a same combined signal to each of a plurality of interface units located at each of a plurality of different customer locations, the interface unit at each respective customer location corresponding to the receiver/decoder that received/decoded the signals and that output the video channels, Wherein the same combined signal includes at least a first selected video channel modulated onto a first user channel on a first frequency band corresponding to a first user interface unit, the same combined signal further including a second selected video channel modulated onto a second user channel on a second frequency band corresponding to a second user interface unit.

Hoarty discloses the service module (Figure 7, 11) providing one or more receiver/decoders within each service module (Figure 7, 67, Figure 8, 82a-c) to provide the video channel to an output interface multiplexer in the service module (Figure 7, 73,

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Page 4, paragraphs 0054), the output interface multiplexer (Figure 7, 73) configured to provide a same combined signal to each of a plurality of interface units (Figure 8, 76, TV, Page 4, paragraph 0057) located at each of a plurality of different customer locations (Figure 7, 76a, b, c), the interface unit at each respective customer location corresponding to the receiver/decoder that received the signals (Figure 7, 66) and output the video channels (Figure 7, 76a-c), Wherein the same combined signal includes at least a first selected video channel modulated onto a first user channel on a first frequency band corresponding to a first user interface unit as it necessarily included that one interface unit receives one channel on a first frequency band of a number of received channels (Figure 7, paragraph 0054), the same combined signal further including a second selected video channel modulated onto a second user channel on a second frequency band corresponding to a second user interface unit as it necessarily included that one interface unit receives another channel on a second frequency band of a number of received channels (Page 4, paragraph 0054).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Stoel with the cited limitations as taught by Hoarty in order to provide a system which serves simultaneously homes with multiple devices with the modular structure (Page 4, paragraph 0056) as disclosed by Hoarty.

Hoarty discloses providing upstream communications for pay per view channels (Pages 10-11, paragraphs 0091, 0096). The combination is silent on a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit and a second user selected video

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channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit.

Ehreth discloses selecting a channel and sending data upstream, a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30) and a second user selected video channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination with the selecting a channel and sending data upstream, a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30) and a second user selected video channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30) as taught by Ehreth in order to reduce cost and complexity in a system by having one interface unit per subscriber home with multiple televisions in a system that serves multiple homes (Column 1, lines 13-35) as disclosed by Ehreth.

Regarding Claim 50, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 49. Hoarty discloses each of the one or more receiver/decoders or the receiving interface and processor (Figure 7, 67, Figure 8, 82a-c) are included in one or more corresponding user control circuits or multimedia controller (Figure 7, 67).

Regarding Claim 51, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 49. Hoarty discloses wherein each of the one or more corresponding user control circuits (Figure 7, 67) correspond to one or more user interface units (Figure 7, 76a-76c).

Regarding Claim 52, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 51. Hoarty discloses wherein each of the one or more corresponding user control circuits (Figure 7, 67, 72a) correspond to one or more user interface units (Figure 7, 76a-76c), wherein each of the one or more corresponding user control circuits includes a service interface multiplexer (MUX) (Figure 7, 73), a communication service module (Figure 7, 66b) and a modulator (Figure 7, 73b).

6. Claims 23 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoel in view of Hoarty and Ehreth as applied to claims 21 and 35 above, and further in view of Farber et al (US 6,486,907 and hereafter referred to as "Farber").

Regarding Claim 23, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 21. Stoel discloses one or more of the plurality of service modules are each separately connected to a corresponding one or more of the plurality of interface units (Figure 1, 16, 28). Hoarty discloses each of a respective service module of the plurality of service

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modules corresponds to one or more interface units of the plurality of interface units (Figure 7, Figure 8), the selected output frequency of each receiver/decoder in a given service module is different from a selected output frequency of any other receiver/decoder in the given service module (Figure 7, Page 4, paragraphs 0053-0054), each of the video channels received/decoded by a given service module being combined together into a single signal and further wherein each interface unit is receptive of the single signal and from the service module (Page 4, paragraph 0054), wherein each of the plurality of the interface units is configured to provide only a selected one of the video channels in the combined signal to the video displaying apparatus (Page 4, paragraph 0054, 0055). The combination is silent on interface units arranged in a loop through relationship with respect to their respective service modules. Farber discloses the interface units are arranged in a loop through relationship with respect to their service modules (Figure 1, Figure 2, 46, 54, and 58). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include interface units are arranged in a loop through relationship with respect to their service modules (Figure 1, Figure 2, 46, 54, 58) as taught by Farber in order to improve of the performance of distribution of satellite signals in an apartment building outputting in a single cable (Column 1, lines 32-44, 66-67, Column 2, lines 1-9) as disclosed by Farber.

Regarding Claim 37, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 35. Stoel discloses that service modules are dispersed throughout the building or set of buildings (Figure 1, 28, 18A-D). The combination is silent on at least one service

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module for each floor of the building or set of buildings. Farber discloses each service module of the plurality of service modules located at a different location throughout each floor of the building or set of buildings relative to other service modules of the plurality (Figure 2, 46, 54). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include each service module of the plurality of service modules located at a different location throughout each floor of the building or set of buildings relative to other service modules of the plurality (Figure 2, 46, 54) as taught by Farber in order to improve of the performance of distribution of satellite signals in an apartment building outputting in a single cable (Column 1, lines 32-44, 66-67, Column 2, lines 1-9) as disclosed by Farber.

7. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stoel in view of Hoarty and Ehreth as applied to claims 34 above, and further in view of Granger (US 5,483,277) and Huang et al (US 5,233,652 and hereafter referred to as "Huang").

Regarding Claim 48, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 34. Hoarty discloses providing upstream communications for pay per view channels (Pages 10-11, paragraphs 0091, 0096). Ehreth discloses a first user selected video channel modulated onto a first user channel on a first frequency band uniquely corresponding to a first user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30) and a second user selected video channel modulated onto a second user channel on a second frequency band uniquely corresponding to a second user interface unit (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30).

The combination is silent on including a separate fixed frequency bandpass filter located at each customer location for each interface unit, the bandpass filter at the customer location of the first user interface unit configured to allow the first frequency band corresponding to the first user interface unit to pass through to the first interface unit while preventing the second frequency band uniquely corresponds to the second user interface unit from passing through the first user interface unit. Granger discloses a separate fixed frequency bandpass filter located at each customer location for each interface unit, the bandpass filter substantially preventing video channels other than the selected video channel associated with that interface unit to pass through to the interface unit or at the customer location of the first user interface unit configured to allow the first frequency band corresponding to the first user interface unit to pass through to the first interface unit (30-56, Column 7, lines 11-27, 43-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include a separate fixed frequency bandpass filter located at each customer location for each interface unit, the bandpass filter substantially preventing video channels other than the selected video channel associated with that interface unit to pass through to the interface unit or at the customer location of the first user interface unit configured to allow the first frequency band corresponding to the first user interface unit to pass through to the first interface unit (Column 6, lines 30-56, Column 7, lines 11-27, 43-55) as taught by Granger in order to be connect to only requested TV channels and a VCR channel (Column 1, lines 53-67, Column 2, lines 1-10) as disclosed by Granger.

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The combination is silent on a bandpass filter prevents the second frequency band uniquely corresponds to the second user interface unit from passing through the first user interface unit.

Huang discloses a bandpass filter prevents the second frequency band uniquely correspond to the second user interface unit from passing through the first user interface unit (Column 3, lines 56-67, Column 4, lines 1-9, Column 6, lines 57-67, Column 1, lines 1-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include a bandpass filter while prevents the second frequency band uniquely correspond to the second user interface unit from passing through the first user interface unit (Column 3, lines 56-67, Column 4, lines 1-9, Column 6, lines 57-67, Column 1, lines 1-27) as taught by Huang in order to be connect to only requested TV channels for which the subscriber has paid a premium fee (Column 3, lines 56-67, Column 4, lines 1-20) as disclosed by Huang.

8. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stoel in view of Hoarty and Ehreth as applied to claims 49 above, and further in view of Schnee et al (US 4,290,142”).

Regarding Claim 53, Stoel, Hoarty and Ehreth disclose all the limitations of Claim 49. Ehreth discloses wherein the first and second frequency bands area assigned to the respective first and second user interface units (Column 3, lines 40-50, Column 4, lines 63-67, Column 5, lines 1-30.)

The combination does not explicitly disclose that the frequency is based on a distance of the first user interface unit to the service module relate to a distance of the second user interface to the service module. Schnee discloses the frequency is based on a distance of the first user interface unit to the service module relate to a distance of the second user interface to the service module (Column 5, lines 13-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include the frequency is based on a distance of the first user interface unit to the service module relate to a distance of the second user interface to the service module (Column 5, lines 13-39) as taught by Schnee in order to increase channel capacity (Column 5, lines 13-39) as disclosed by Schnee.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FARZANA HOSSAIN whose telephone number is (571)272-5943. The examiner can normally be reached on Mondays and Wednesdays, 8:00 am to 1:00 pm, Tuesdays, Thursdays and Friday 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/FARZANA HOSSAIN/
Primary Examiner, Art Unit 2424

November 22, 2010

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